

Bell work

11-17/18-15

1. How are a cooking recipe and a laboratory procedure the same?
2. What is the first thing that you should do before you make a recipe? What about a laboratory procedure?
3. What parts of a solar/photovoltaic cell are responsible for charge transport and charge generation? (Use words or diagram.)

What If You Don't Read the Recipe?

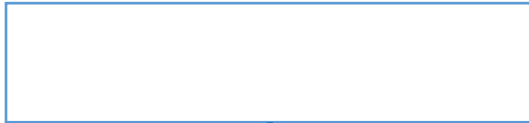


Photovoltaic Cell

Uses



Hits

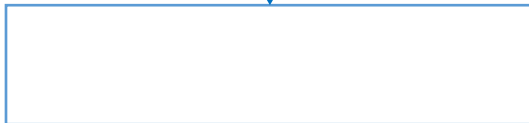


Where

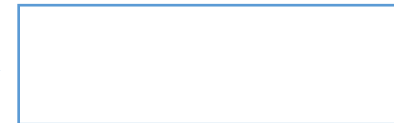


Charge is

In contact with



Where



Charge is

Flows to

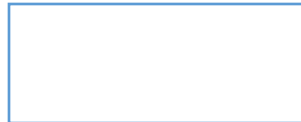


Where

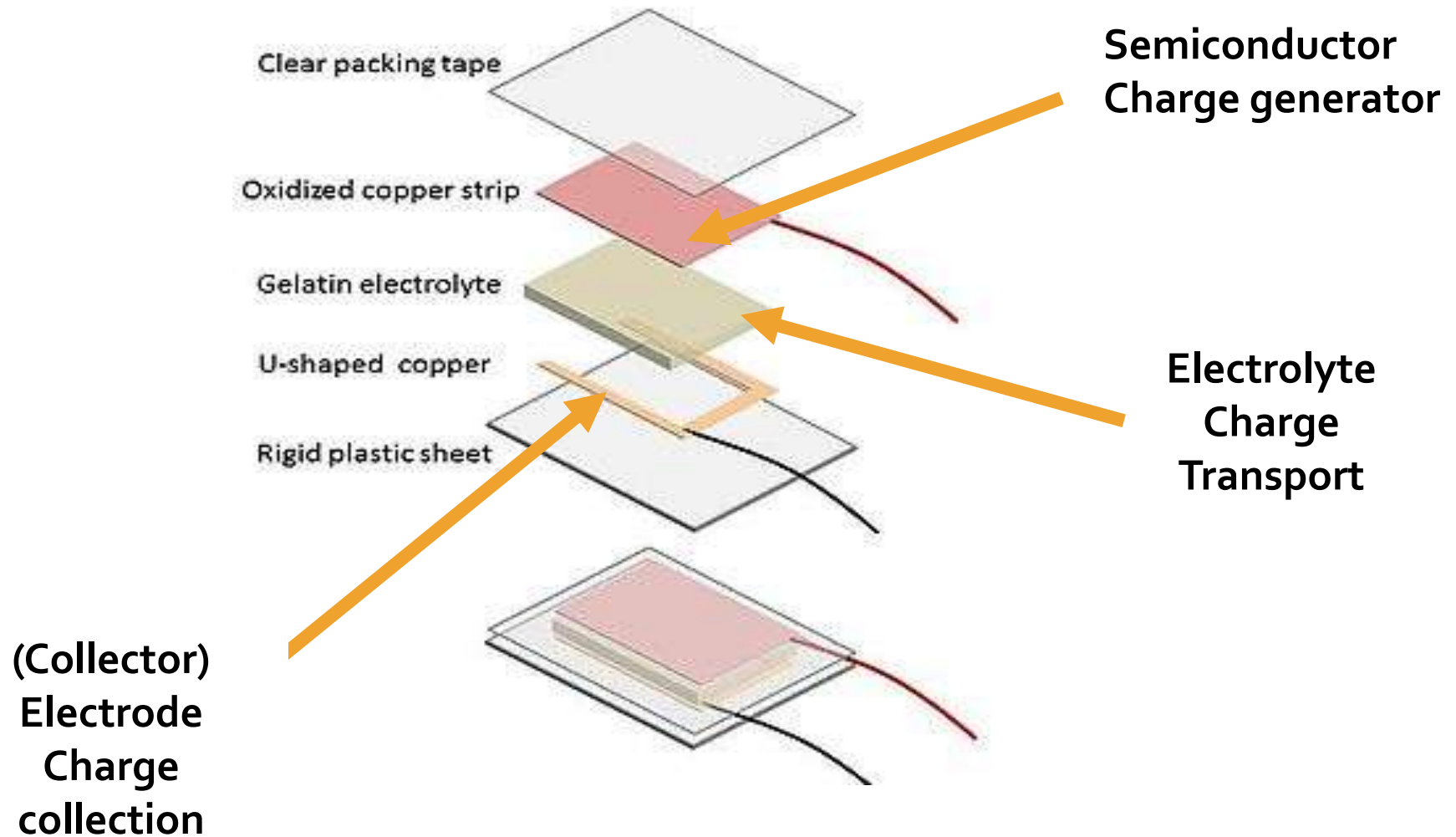


Charge is

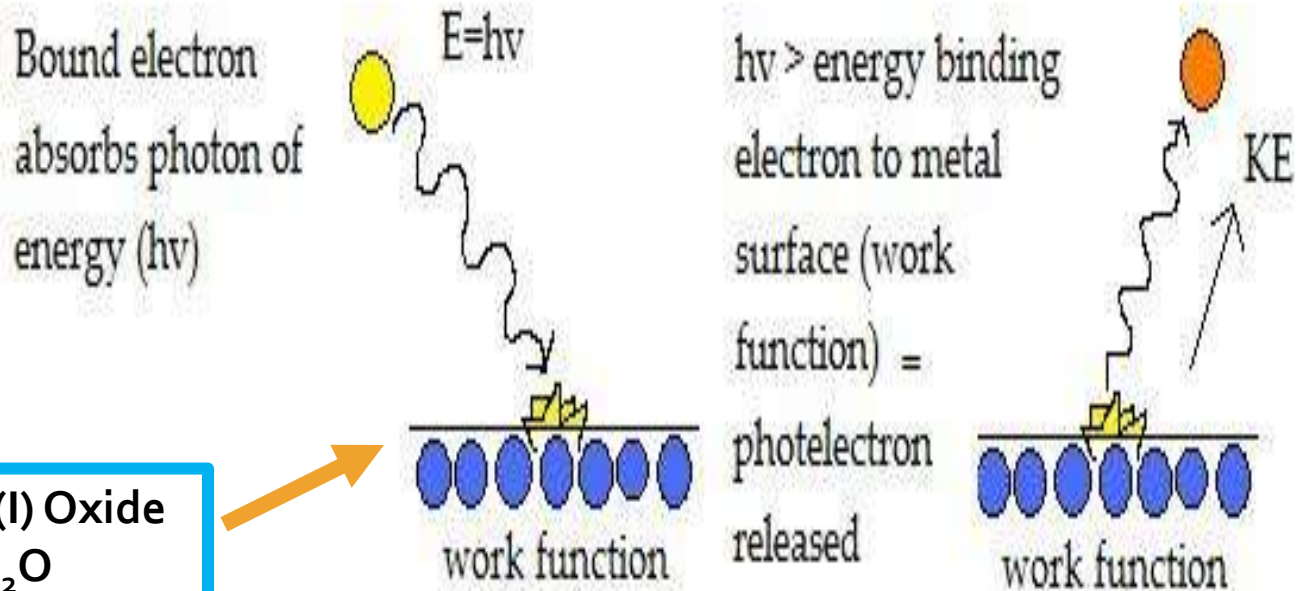
Produces



Copper Solar Cells

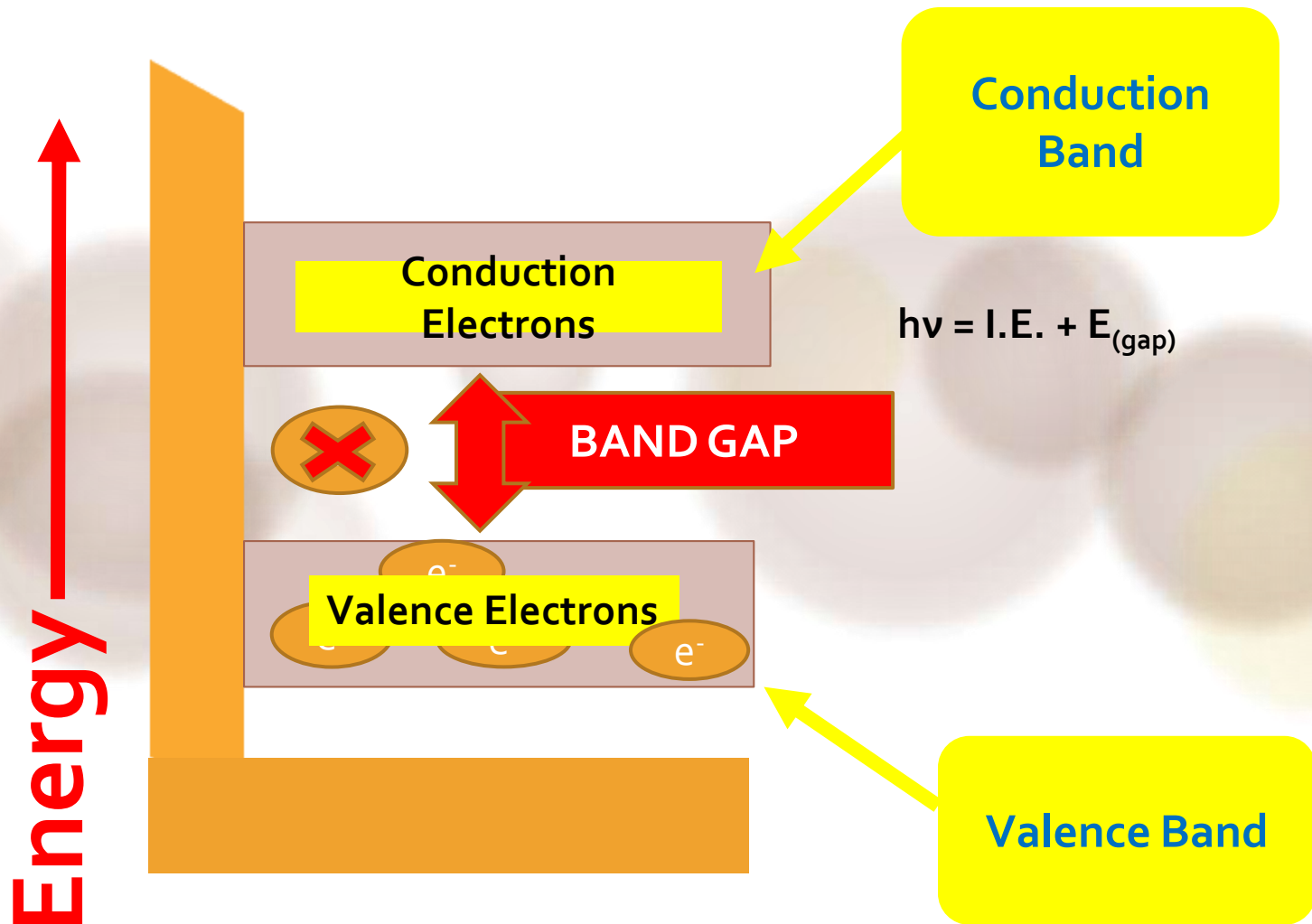


Photoelectric Effect



Copper (I) Oxide
 Cu_2O

Why Must $h\nu > \text{Ionization Energy}$?



Oxidizing Copper (Steps 1-5)

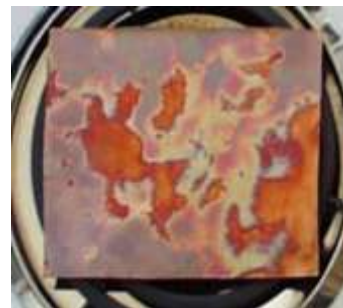
Copper loses e^- s by heating or thermal energy

1)



Copper

2)



Initially forms
Copper (I) oxide
 Cu_2O

3)



Forming
Copper (II) oxide
 CuO

4)



Dark thick
layer of
black CuO

Steps 6- 7

As it cools, the black copper (II) oxide will flake off.



CLEAN GENTLY!